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ABSTRACT

The three studies presented in this document investigated factors that influenced students not to enroll in Ohio joint vocational schools (JVS's) and their nonvocational students in the comprehensive feeder schools for the Springfield-Clark JVS, Lawrence County JVS, and Vanguard JVS during the 1989-90 school year. A student questionnaire acquired data on students' sex, race, curriculum choice, image of and reasons for not enrolling in vocational education and the JVS, choice of future occupation, and future plans. Data revealed that student images of vocational education and JVS's needed to be improved. Students in Springfield-Clark and Lawrence County JVS feeder schools gave these reasons for not enrolling: planning to attend college; not wanting to leave friends; and programs offered. Students in Vanguard JVS feeder schools also cited the poor image of the JVS and vocational education students. All three studies cite the same implications and recommendations, including promotion of the accomplishments of graduates, provision of courses to explore vocational education, and efforts to ease the transition to a JVS. The studies also recommend further research in 11 areas, including research to explore bonds that keep students from leaving the home school, impact of increased graduation requirements, and student characteristics of enrollees in all programs. (YLB)

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An Examination of Factors Influencing Students Not to Enroll at the Springfield-Clark JVS, Vanguard JVS, and Lawrence County JVS

Summary of Research 61
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Summary of Research

Department of Agricultural Education
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An Examination of Factors Influencing Students Not to Enroll at the Springfield-Clark JVS

Rosemarie Rossetti

There has been a steady decline in enrollment in vocational programs in Ohio since 1979, with a decline of 21% from 1979-1987. In 1987, Ohio student enrollment was 165,639 students or approximately 59% of Ohio's 11th and 12th grade students, enrolled in nine vocational programs (agricultural education, marketing education, health education, home economics (gainful), home economics education, business education and trade and industrial education).

Many of Ohio's 11th and 12th grade vocational students are enrolled in area vocational schools. Students from comprehensive high schools have an option to leave their home high school to attend vocational centers. Some students continue attending classes at their home high schools, while others leave their home high schools after the 10th grade.

The primary purpose of vocational education is to train students for careers. Ginzberg (1951) believed that career development was an ongoing process. He also believed that it was a process that involved choices. The choice to enter into a vocational curriculum is a choice toward choosing a career. There are many factors that influence career decisions. Several authors have identified barriers to enrollment in vocational education.

Lam's (1982) classification system was used to describe the barriers that influence students' decisions not to enroll in vocational education. This system divides the reasons into three main categories. The first is intrapersonal reasons which include attitudes, perceptions, images, motivation, career maturity and value systems. The second is influence of parents, friends, counselors, neighbors, teachers and other relatives. The final category is remote external reasons which include socioeconomic status, parental income and parental educational levels.

Others look at career maturity as a barrier to enrollment. The concept of career maturity was introduced by Super (1955). Super defined career maturity as the repertoire of behaviors that help identify, choose, plan and execute career goals, being at an average level in career development for one's age. Super (1963) also considered congruence between vocational behavior and expected vocational behavior at that age. The problem in career maturity arises when students are asked to make a choice too soon. Herr (1979) believed that the complexity of the factors involved in a career choice make it impossible for students to make realistic choices until they are seniors in high school or after high school. Vocational school directors also state that high school students were neither knowledgeable enough about careers nor mature enough to make appropriate career decisions (O'Neill 1985). The choice to select a vocational program, thus a career, has to be made in the 10th grade in order to enroll in Ohio's area vocational centers or joint vocational schools (JVS). According to Herr, this choice is an unrealistic one and one that a student is not mature enough to make realistically.

Many people influence a student when making a decision about their high school curriculum. An individual is less likely to express a preference and more likely to express a rejection for an activity or field of study that has had consistently negatively expressed opinions from a valued person (Social Learning and Career Decision Making, 1979). Herr (1987) found that students will seek advice from a teacher, parents, friends, counselors and other relatives.

Purpose and Objectives

This study investigated factors that influence students not to enroll at the Springfield-Clark JVS and in vocational education at the nine feeder comprehensive high schools. The purpose of the study was to identify reasons why high school students elect not to enroll into vocational curriculums. Specific objectives were as follows:

1. To describe the characteristics of the students (gender, race, curriculum choice, place of residence) who chose not to enroll into a high school vocational curriculum.
2. To describe the reasons students give for choosing not to enroll into vocational education classes and not to enroll at the Springfield-Clark JVS.
3. To describe students' images of vocational education and the Springfield-Clark JVS.
4. To determine the relationships between student characteristics and reasons for not choosing to enroll in vocational education and the Springfield-Clark JVS.
5. To determine who influences students to make decisions not to enroll in the Springfield-Clark JVS.
6. To determine how informed students are regarding vocational education class offerings.
7. To determine the future occupational choices of students.
8. To determine the future educational choices of students.
9. To determine if additional course offerings at the Springfield-Clark JVS would encourage enrollment.
10. To determine if alternative delivery systems at the Springfield-Clark JVS would encourage enrollment.

Methodology

Population and Sample

This study was developed as descriptive survey research. The target population was all 11th grade, non-vocational students in the nine comprehensive feeder schools for the Springfield-Clark JVS during the 1989-90 school year. The Springfield-Clark JVS serves a combination urban and rural population comprised of people living in the city of Springfield and in Clark county. According to the 1980 U.S. Census, there were 150,000 people residing in the Clark county area. Ninety-one percent of the population is white, while nine percent is black. Thirty-five percent of the adult population, 25 years of age or older, has an education below the 12th grade. Twenty-five percent of all adults were living in low income families. The effective buying income or disposable, after tax income, reported by the Springfield Chamber of Commerce, was between $10,000-20,000 for 22% of the population in Clark County. The JVS offers 25 vocational programs, with 700 full-day and half-day students enrolled for the 1991-92 school year. The results of this study are not generalizable to other populations.

A random cluster sample was selected from intact English classes. The population size was estimated to be 1,840. Data were collected from a sample of 357 students. Sample size was based on the formula to determine sample size in order to be representative of the given population (Krejcie & Morgan, 1970), with 95% confidence and a 5% margin of error. Data was collected in the Spring of 1990 from all students present on the day the instrument was distributed.

Non-vocational students were defined as those enrolled in a college preparatory or general curriculum. Further curriculum choice guidelines were developed. College preparatory students were enrolled in courses to prepare for entry into a 4-year college or university. They usually have taken ACT or SAT college entrance examinations during their junior year. Courses selected by students enrolled in a college preparatory curriculum included: chemistry, algebra, physics, geometry, biology, advanced math, advanced science and/or foreign languages. Based on a national fact sheet published by the Ohio State Department of Education in 1988, these academic track students averaged 2.7 vocational credits upon graduation from high school.

General curriculum students have taken course work of a general nature in order to earn enough credits for graduation. Courses selected included: consumer math, general math, general science, life science, earth science, industrial arts, general accounting and/or typing. According to a national fact sheet, general curriculum students averaged 4.6 vocational credits upon graduation from high school.

According to a national fact sheet, students who concentrate in a vocational specialty averaged 6.5 Carnegie Units of vocational course work upon graduation from high school. As juniors, they have been enrolled in at least two continuous years in vocational specialty program areas including: agricultural education, home economics education, business education, marketing education, trade and industrial education, and health and safety services education.

Instrumentation

The questionnaire used for this study was revised from a similar questionnaire used in a study in 1988 (Factors That Influence a Student Not to Enter Into a High School Vocational Curriculum). Input was received from school administrators at Springfield-Clark JVS to add additional questions. No substantive changes were made. Minor revisions and adaptations were completed on the original questionnaire. Faculty at The Ohio State University were consulted to review the questionnaire and make further improvements on format and content validity.

The student questionnaire was designed to acquire data on the following student variables: sex, race, curriculum choice, place of residence, image of vocational education and of the Springfield-Clark JVS, reasons for not enrolling in vocational education and the Springfield-Clark JVS, people who influence students in making enrollment decisions, choice of future occupation, educational and military plans after high school, considerations of alternative delivery systems and suggested program offerings.

Content validity was established on the original questionnaire by panels of experts comprised of university faculty, vocational researchers and graduate students. Reliability was determined on the questionnaire using test-retest procedures, at an area high school not participating in the study, with Pearson product moment coefficients ranging from .42 to 1.00. Cronbach's alpha was conducted to determine the reliability of summated scales and coefficients ranged from .63 to .83.

The revised instrument was field tested in an 11th grade English class that was not in the population. After the pilot test, the instrument was mailed to the JVS for printing. The administration of the questionnaire was coordinated by personnel at the JVS. Guidance counselors sorted the students according to curriculum choice based on the set of guidelines previously described. Students were classified as either academic or general curriculum. Completed questionnaires were delivered to OSU for processing and data analysis.

Data Analysis

All completed questionnaires were coded and data were entered into a personal computer and analyzed on the OSU main frame computer using the Statistical Package for Social Sciences. Descriptive statistics were employed in order to describe the sample and their responses. The relationships between the nominal student characteristics and image of vocational education and the JVS were determined with analysis of variance. Variables are reported as being significant at the .05 alpha level. Data from open-ended responses were summarized and put into categories.

Findings

Student Characteristics

Thirty-eight percent of the sample were enrolled in an academic curriculum, while 62% were enrolled in a general curriculum. Fifty-five percent of the sample were male, while forty-five percent were female. The majority of the sample (82.3%) were White, while 13.2% were Black, 2.3% Other, 1.7% Native American, 0.3% Hispanic and 0.3% Asian. Most of the students lived in the city (48.7%). Few students, 6.5% lived on a farm, 27.5% lived in a rural area, but not on a farm, while 17.2% lived in a suburb.

Students' characteristics (curriculum choice, sex, race, place of residence) were used as nominal variables to determine if they helped explain the variability of (1) image of vocational education and (2) image of the JVS. When examining the relationships, two statistically significant differences ($p < .05$) were found. Students following an academic curriculum tended to have a more negative image of (1) vocational education and (2) the Springfield-Clark JVS than did students following a general curriculum. The difference in mean scores was not statistically significant between students at each of the nine schools. Females tended to have more negative image scores, however, the difference was not statistically different from males. Asian students tended to have the most negative images, however, the differences among races was not statistically significant. Students who lived in a rural area, but not on a farm, tended to have the most negative images, however, this difference was not statistically significant.

Reasons for Not Enrolling in Vocational Education

Looking at the actual open-ended responses to students' reasons for not enrolling in vocational education, the following categories were developed from frequencies and percentages of the responses:

Categories (rank order) (N=392)

1. The JVS didn't offer what I'm interested in. (17%)

2. I want to go to college. (15%)
3. Vocational education narrows my career choices. (10%)
4. Vocational education does not meet college requirements. (9%)
5. I didn't want to leave my friends. (9%)
6. I did not want to change schools. (6%)
7. No reason. I never thought about it. (5%)
8. I have a poor image of the vocational students. (5%)
9. There was a lack of information about the JVS. (5%)
10. I just did not want to go. (4%)
11. JVS classes are too easy or not challenging. (3%)
12. Parents advised me against enrolling in vocational education. (3%)
13. Poor image of the vocational school. (2.5%)
14. There were scheduling problems. (2%)
15. Vocational education is expensive. (2%)
16. I plan(ned) to attend vocational educati[illegible]. (1%)
17. My counselor advised me not to attend. (1%)
18. I should have enrolled. (.50%)
19. Vocational education is too difficult. (.50%)
20. Vocational education is a waste of time. (.50%)

In addition to the open-ended items, students responded to a list of 14 selected reasons for not enrolling in vocational education. A Likert scale was developed to further determine students' reasons for not enrolling in vocational education. Students responded whether they had "no concern," (1) "little concern," (2) "some concern," (3) "great concern," (4) or "did not think about it". The top five reasons were:

	Means	SD
1. Plans to attend college.	3.18	1.1
2. Career choice limitations.	2.91	1.1
3. Graduation requirements.	2.59	1.2
4. Academic ability of vocational students.	2.39	1.1
5. Behavior of vocational students.	2.32	1.2

Vocational Classes at the Home School

Eleven percent of the students indicated they were not informed about vocational classes offered at their home schools. Sixty-one percent indicated they were slightly informed, while 28% percent were very informed. Forty-three percent indicated they had considered enrolling in vocational classes at their home school, while 57% percent said they had not considered enrolling.

Reasons for Not Enrolling at Springfield-Clark JVS

Ten potential reasons for not enrolling at the Springfield-Clark JVS were presented to the students. A Likert scale was developed to further determine students' reasons for not enrolling at the JVS. Students responded whether they had "no concern," (1) "little concern," (2) "some concern," (3) "great concern," (4) or "did not think about it". Results showed the following top five reasons in Table 1.

Thoughts About Vocational Education

Responses to an open-ended question regarding student thoughts when they think about vocational education were summarized into categories. The 302 responses were judged through content analysis by the researcher to be positive (36.4%), negative (46.7%) or neutral (16.9%). The categories and percentages were:

Positive

1. Vocational education is fine for students who do not go on to college. (11.7%)
2. Vocational education provides a good learning experience and opportunity. (5.3%)
3. Vocational education trains students for a specific type of career. (4.6%)
4. Vocational education helps a student become better qualified for a career. (4.3%)
5. Vocational education prepares students for a career directly after high school. (3.3%)
6. Vocational education could help you in the future. (2.6%)
7. Vocational education is interesting,fun or exciting. (2.6%)

Table 1

Reasons for Not Enrolling at JVS

	Mean	SD
1. Home school will better prepare a student for college.	2.97	1.2
2. Unwilling to leave my friends at my home school.	2.82	1.2
3. The programs offered at the JVS.	2.42	1.2
4. The image of the JVS.	2.31	1.1
5. Association with students from the JVS.	2.25	1.1

8. I want to or plan to take vocational education courses. 2%)

Negative

1. Vocational education is for low income, low intelligence students. (8.6%)
2. Vocational education is all right for some people, but it is not for me. (6%)
3. Vocational education is for troublemakers. It has a bad reputation and poor image. (5.6%)
4. Vocational education did not interest me. (5.3%)
5. Vocational education is the easy way out. It is not challenging. It is too easy. 4.6%)
6. Vocational education limits your knowledge about other career choices. (3.3%)
7. Vocational education is a waste of time. (3%)
8. Vocational education does not offer courses required for college preparation. (3%)
9. Vocational education classes are too difficult. (3%)

Neutral

1. I never thought much about vocational education. (6.3)
2. Vocational education reminds me of vocational agriculture and farming. (5.3%)
3. I do not know anything about vocational education. (5.3%)

Thoughts About Springfield-Clark JVS

Responses to the open-ended question regarding students' thoughts when they think about the Springfield-Clark JVS were summarized into categories. The 255 responses were judged through content analysis by the researcher to be positive (39%), negative (46%) and neutral (15%). The categories and percentages were:

Positive

1. The JVS is a nice place. It is unique. (12%)
2. The JVS provides a variety of career opportunities to students. (9%)
3. The JVS is interesting, exciting and different from regular high school. (6%)
4. The JVS provides a good learning experience. (5%)
5. The JVS trains students for a specific type of career. (5%)
6. The JVS is fine for students who do not want to go on to college. (2%)

Negative

1. The JVS is for troublemakers. It has a bad reputation and a poor image. (11%)
2. The JVS didn't have what I am interested in. (11%)
3. The JVS is the easy way out. It is not challenging. (8%)
4. The JVS is all right for some people, but it is not for me. (7%)
5. The JVS is for low income and underachieving students. (4%)
6. The JVS limits my exposure to other types of careers. (3%)
7. There are transportation and scheduling problems. (1%)
8. The JVS does not offer college preparatory courses. (.50%)
9. The JVS does not allow me enough time to be with my friends. (.50%)

Neutral

1. I never thought much about attending the JVS. (11%)
2. I don't know anything about the JVS. (4%)

Image of Vocational Education

Students' images of vocational education were measured with a composite score of students' responses to a list of 14 potential reasons for not enrolling in vocational education. Students responded whether they had "no concern,"(1) "little concern,"(2) "some concern,"(3) "great concern,"(4) or "did not think about it". Those who had great concern with the reasons (higher composite scores) were judged to have a negative image of vocational education. Those responding they had no concern (lower composite scores) were judged to have a more positive image of vocational education. The potential range of scores was 0-56, with an actual range of 2-56. The mean score was 26.2, with a standard deviation of 9.71.

Image of the Springfield-Clark JVS

Students were asked to respond to a set of ten reasons for not enrolling at the Springfield-Clark JVS. Students' images were computed using a composite score. Students responded whether they had "no concern."(1) "little concern,"(2) "some concern,"(3) "great concern,"(4) or "did not think about it". Those who had great concern with the reasons (higher composite scores) were judged to have a negative image of the JVS. Those responding they

had no concern (lower composite scores) were judged to have a more positive image of the JVS. The potential range of scores was 0-40, with an actual range of 1-40. The mean score was 19.5, with a standard deviation of 7.14.

Experiences at Schools

Students were asked to report how informed they were about vocational classes offered at their home schools and what previous experiences they had at a joint vocational school. Table 2 summarizes their responses.

Future Occupations

Sixty-four percent of the respondents indicated they had selected a future occupation. The top five occupations chosen were: accountant, computer programmer, business person, lawyer and psychologist.

Influencers on Enrolling at the Springfield-Clark JVS

Students reported that they were influenced by others when choosing their high school curriculum. When deciding to not enroll at the Springfield-Clark JVS, the students' friends and mothers/guardians were most influential. The father was also influential, followed by the counselor.

Future Plans to Attend Springfield-Clark JVS

The majority of the students were not interested in attending the Springfield-Clark JVS for a one-half day program. They also were not interested in attending a summer school program at the Springfield-Clark JVS to prepare them for their career. Likewise, they were not interested in attending a night school program. They were also not interested in taking additional math, English or pre-engineering courses in an effort to attend the JVS.

Table 2

Students' Experiences

Been previously enrolled at a vocational school	5%
Never toured the JVS	52%
Did not seriously consider attending the JVS	59%
Not informed at all about vocational classes at the home school	10%
Slightly informed about vocational classes at the home school	61%
Very informed about vocational classes at the home school	28%

Future Classes to Offer

The students were asked to identify the classes they would like to see offered at the Springfield-Clark JVS. In addition, they indicated what classes not presently offered at the JVS, they would like to see offered at their home school. They also identified the courses they thought would help them to prepare for their future occupations. The top five courses in each category are listed in Table 3.

Further Education and Military Plans

Students were asked to indicate their plans for further education and plans to enter the military after graduating from high school. Table 4 lists the percent of students with each intention.

Implications and Recommendations

The data reveal student images of (1) vocational education and (2) Springfield-Clark JVS. These images need to be improved. If students are to be recruited into vocational programs, they must hold positive images in order to make a decision to enroll. In order to improve the images formed, many recommendations are offered.

1. Efforts need to be made to promote the accomplishments of graduates. Schools need to include information about graduates going on to higher education. Placement rates and starting salaries of graduates should be publicized. Vocational students who receive scholarships to further their education should be in the limelight.
2. Additional articulation agreements need to be made and publicized between the JVS and technical schools, colleges and universities.
3. School administrators must recognize the direct clash in scheduling courses between vocational and academic curricula. Perhaps the two can be blended in order to allow the academic student a chance to explore vocational course work for enrichment or investigative purposes to help decide on a career.
4. Efforts should be made to ease the social transition when students change schools in order to attend the JVS. Home school friendship is a bond that is keeping some students from enrolling.

Table 3

Suggested Classes

Classes for the JVS	f
Child Care and Development	68
Law Enforcement	59
Aircraft Flight Training & Operations	57
Computer Repair & Maintenance	42
Graphics, Printing & Computer Layout	35
Classes to Offer at Home School	
Law	16
Computer	15
Business Management	7
Aircraft/Air Force Training	7
Engineering	5
Classes to Prepare for Future Occupations	
Math	215
English	149
Science	45
Accounting	32
Chemistry	24

The JVS should be promoted as a friendly place that provides for social interactions. School social events should be sponsored to encourage social interaction. There should be more non-competitive events between the students at the JVS and each of the home schools. Marketing pieces should address the issue of leaving your friends at the home school vs. increasing your friendship network at a new school.

5. New vocational program offerings should be considered for the JVS. Additional marketing should be done to explore employment possibilities and interest in the following programs: child care and development; law enforcement; aircraft flight training and operations; computer repair and maintenance; graphics, printing and computer layout; banking and finance.
6. Comprehensive feeder schools should sponsor tours of the JVS for all students prior to or during the sophomore year of high school. Students should be introduced to all program offerings.
7. There needs to be increased efforts at public information. Specifically, mothers and students should be targeted as audiences. These groups were found to be most influential on students when making a decision to not enroll in vocational education.

Recommendations for Further Research

1. Additional marketing research is needed to validate the need for additional employees in the surrounding geographic area for vocations in child care; law enforcement; aircraft flight training and operations; accounting; computer programming; computer repair; and graphics, printing and computer layout.
2. Additional research is needed to explore the friendship bonds that keep students from leaving their home schools.
3. Additional research is needed to explore the mother-child relationship to determine how to use the mothers' influence to encourage enrollment in vocational education. One also needs to determine how she arrives at her images of vocational education.
4. Additional research is needed to determine if increased graduation requirements and increased college entrance requirements have made a significant impact on enrollment in vocational education.
5. Additional research is needed to determine what pre-college vocational courses would be most suitable for future accountants and computer programmers.
6. Additional research is needed to study other additional student characteristics of those enrolled in academic and general curriculums. Relationships can be explored between selected student characteristics and reasons for enrolling in academic and general curriculums.

Table 4

Students' Future Plans

Educational Plans	
Enroll in a four year college	36%
Not sure	19%
Additional education, but not sure where	14%
Do not plan to enroll in additional education beyond high school	11%
Enroll in a two year technical school	10%
Attend a professional or graduate school	4%
Military Plans	
Definitely will not enter the military	32%
Not sure	26%
Not likely to enter the military	19%
Likely to enter the military	13%
Definitely will enter the military	8%

7. A similar image study could be designed for students at the 7th-10th grade level. The purpose would be to determine when images of vocational education are formed and what those images are. A follow-up study on these same students could be taken when they reach the 11th grade to see if images change.
8. A follow-up study on this 11th grade sample could be designed to see if any students enroll in vocational courses during their 12th grade or enroll in a technical school after graduation.
9. One could explore reasons why students enroll in vocational education at their home schools and at the Springfield-Clark JVS. The reasons given can be compared with the results of this study.
10. One can study the student characteristics of those currently enrolled in vocational education at the home school as well as at the Springfield-Clark JVS. Characteristics to examine would include: grade point average, class rank, socio-economic status, honors earned. Comparisons can be made between students enrolled in general and academic curriculums.
11. A model needs to be developed in order to administer vocational education for students in dual vocational and academic curriculums. Further study is needed in order to establish how these programs will be scheduled and delivered.

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SUMMARY OF RESEARCH

There has been a steady decline in enrollment in vocational programs in Ohio since 1979, with a decline of 21% from 1979-1987. There are many reasons why high school students elect not to enroll in vocational education programs. This study investigated factors that influence students not to enroll at the Springfield-Clark Joint Vocational School and in nine feeder comprehensive high schools. Vocational education teachers, vocational administrators, state supervisory staff, and teacher educators should find this information useful in program planning and student recruitment.

This summary is based on research conducted by Rosemarie Rossetti, Assistant Professor, Department of Agricultural Education, The Ohio State University. Special appreciation is due to Jim L. Flowers, North Carolina State University; and Lowell E. Hedges, The Ohio State University for their critical review of the manuscript prior to publication.

Research has been an important function of the Department of Agricultural Education since it was established in 1917. Research conducted by the Department has generally been in the form of graduate theses, staff studies, and funded research. It is the purpose of this series to make useful knowledge from such research available to practitioners in the profession. Individuals desiring additional information on this topic should examine the references cited.

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Summary of Research

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An Examination of Factors Influencing Students Not to Enroll at the Vanguard JVS

Rosemarie Rossetti

There has been a steady decline in enrollment in vocational programs in Ohio since 1979, with a decline of 21% from 1979-1987. In 1987, Ohio student enrollment was 165,639 students or approximately 59% of Ohio's 11th and 12th grade students, enrolled in nine vocational programs (agricultural education, marketing education, health education, home economics (gainful), home economics education, business education and trade and industrial education).

Many of Ohio's 11th and 12th grade vocational students are enrolled in area vocational schools. Students from comprehensive high schools have an option to leave their home high school to attend vocational centers. Some students continue attending classes at their home high schools, while others leave their home high schools after the 10th grade.

The primary purpose of vocational education is to train students for careers. Ginzberg (1951) believed that career development was an ongoing continuous process. He also believed that it was a process that involved choices. The choice to enter into a vocational curriculum is a choice toward choosing a career. There are many factors that influence career decisions. Several authors have identified barriers to enrollment in vocational education.

Lam's (1982) classification system was used to describe the barriers that influence students' decisions not to enroll in vocational education. This system divides the reasons into three main categories. The first is intrapersonal reasons which include attitudes, perceptions, images, motivation, career maturity and value systems. The second is influence of parents, friends, counselors, neighbors, teachers and other relatives. The final category is remote external reasons which include socioeconomic status, parental income and parental educational levels.

Others look at career maturity as a barrier to enrollment. The concept of career maturity was introduced by Super (1955). Super defined career maturity as the repertoire of behaviors that help identify, choose, plan and execute career goals, being at an average level in career development for one's age. Super (1963) also considered congruence between vocational behavior and expected vocational behavior at that age. The problem in career maturity arises when students are asked to make a choice too soon. Herr (1979) believed that the complexity of the factors involved in a career choice make it impossible for students to make realistic choices until they are seniors in high school or after high school. Vocational school directors also state that high school students were neither knowledgeable enough about careers nor mature enough to make appropriate career decisions (O'Neill 1985). The choice to select a vocational program, thus a career, has to be made in the 10th grade in order to enroll in Ohio's area vocational centers or joint vocational schools (JVS). According to Herr, this choice is an unrealistic one and one that a student is not mature enough to make realistically.

Many people influence a student when making a decision about their high school curriculum. An individual is less likely to express a preference and more likely to express a rejection for an activity or field of study that has had consistently negatively expressed opinions from a valued person (Social Learning and Career Decision Making, 1979). Herr (1987) found that students will seek advice from a teacher, parents, friends, counselors and other relatives.

Purpose and Objectives

This study investigated factors that influence students not to enroll at the Vanguard JVS and in vocational education at the five feeder comprehensive high schools. The purpose of the study was to identify reasons why high school students elect not to enroll into vocational curriculums. Specific objectives were as follows:

1. To describe the characteristics of the students (gender, race, curriculum choice, place of residence, socioeconomic status) who chose not to enroll into a high school vocational curriculum.
2. To describe the reasons students give for choosing not to enroll into vocational education classes and not to enroll at the Vanguard JVS.
3. To describe students' images of vocational education and the Vanguard JVS.
4. To determine the relationships between student characteristics and reasons for not choosing to enroll in vocational education and the Vanguard JVS.
5. To determine who influences students to make decisions not to enroll in the Vanguard JVS.
6. To determine how informed students are regarding vocational education class offerings.
7. To determine the future occupational choices of students.
8. To determine the future educational choices of students.
9. To determine if additional course offerings at the Vanguard JVS would encourage enrollment.
10. To determine if alternative delivery systems at the Vanguard JVS would encourage enrollment.

Methodology

Population and Sample

This study was developed as descriptive survey research. The target population was all 11th grade, non-vocational students in the five comprehensive feeder schools for the Vanguard JVS during the 1989-90 school year. The results of this study are not generalizable to other populations.

A random cluster sample was selected from intact English classes. The population size was estimated to be 950 students. Data were collected from a sample of 613 students. Sample size was based on the formula to determine sample size in order to be representative of the given population (Krejcie & Morgan, 1970), with 95% confidence and a 5% margin of error. Data was collected in February 1990 from all students present on the day the instrument was distributed.

Non-vocational students were defined as those enrolled in a college preparatory or general curriculum. Further curriculum choice guidelines were developed. College preparatory students were enrolled in courses to prepare for entry into a 4-year college or university. They usually had taken ACT or SAT college entrance examinations during their junior year. Courses selected by students enrolled in a college preparatory curriculum included: chemistry, algebra, physics, geometry, biology, advanced math, advanced science and/or foreign languages. Based on a national fact sheet published by the Ohio State Department of Education in 1988, these academic track students averaged 2.7 vocational credits upon graduation from high school.

General curriculum students take course work of a general nature in order to earn enough credits for graduation. Courses selected include: consumer math, general math, general science, life science, earth science, industrial arts, general accounting and/or typing. According to a national fact sheet, general curriculum students average 4.6 vocational credits upon graduation from high school.

According to a national fact sheet, students who concentrate in a vocational specialty average 6.5 Carnegie Units of vocational course work upon graduation from high school. As juniors, they have been enrolled in at least two continuous years in vocational specialty program areas including: agricultural education, home economics education, business education, marketing education, trade and industrial education, and health and safety services education.

Instrumentation

The questionnaire used for this study was revised from a similar questionnaire used in a study in 1988 (Factors That Influence a Student Not to Enter Into a High School Vocational Curriculum). Input was received from school administrators at Vanguard JVS to add additional questions. No substantive changes were made. Minor revisions and adaptations were completed on the original questionnaire. Faculty at The Ohio State University were consulted to review the questionnaire and make further improvements on format and content validity.

The student questionnaire was designed to acquire data on the following student variables: sex,

race, curriculum choice, place of residence, socioeconomic status, image of vocational education and of the Vanguard JVS, reasons for not enrolling in vocational education and the Vanguard JVS, people who influence students in making enrollment decisions, choice of future occupation, educational and military plans after high school, considerations of alternative delivery systems and suggested program offerings.

Content validity was established on the original questionnaire by panels of experts comprised of university faculty, vocational researchers and graduate students. Reliability was determined on the questionnaire using test-retest procedures, at an area high school not participating in the study, with Pearson product moment coefficients ranging from .42 to 1.00. Cronbach's alpha was conducted to determine the reliability of summated scales and coefficients ranged from .63 to .83.

The revised instrument was field tested in an 11th grade English class that was not in the population. After the pilot test, the instrument was mailed to the JVS for printing. The administration of the questionnaire was coordinated by personnel at the JVS. Guidance counselors sorted the students according to curriculum choice based on the set of guidelines previously described. Students were classified as either academic or general curriculum. Completed questionnaires were delivered to OSU for processing and data analysis.

Data Analysis

All completed questionnaires were coded and data were entered into a personal computer and analyzed on the OSU main frame computer using the Statistical Package for Social Sciences. Descriptive statistics were employed in order to describe the sample and their responses. The relationships between the nominal student characteristics and image of vocational education and the JVS were determined with analysis of variance. Variables are reported as being significant at the .05 alpha level. The relationships between socioeconomic status and image of vocational education and the JVS were determined with a Pearson correlation coefficient. Data from open-ended responses were summarized and put into categories.

Findings

Student Characteristics

Seventy-eight percent of the sample were enrolled in an academic curriculum, while 22% were enrolled in a general curriculum. Fifty-one percent of the sample were male, while forty-nine percent were female. The majority of the sample (85%) were White, while 5% were Black, 1% Other, 1% Native American, 7% Hispanic and 1% Asian. Most of the students lived in the city (47.2%). Few students, 10.8%, lived on a farm, 26.3% lived in a rural area, but not on a farm, while 15.7% lived in a suburb.

Students' characteristics (curriculum choice, sex, race, place of residence) were used as nominal variables to determine if they helped explain the variability of (1) image of vocational education and (2) image of the JVS. When examining the relationships, statistically significant differences ($p < .05$) were found. The differences in mean scores were statistically significant between image scores of (1) vocational education and (2) image of the JVS between students at the five schools. Hispanic students tended to have the most negative images of vocational education, with statistically significant differences between races, especially between blacks and Hispanics. There were no significant differences between where students lived, students' curriculum choice, and students' sex with their images of vocational education and their images of the JVS.

The correlations were low between socioeconomic status and students' images of vocational education ($r=.05$), and students' images of the JVS ($r=.18$). Socioeconomic scores were calculated by obtaining a composite score based upon the parents' education, occupation and household possessions owned.

Reasons for Not Enrolling in Vocational Education

Looking at the actual open-ended responses to students' reasons for not enrolling in vocational education, the following categories were developed from frequencies and percentages of the responses:

Categories (rank order) (N=976)

1. I plan(ned) to go on to college and get a good education. (12%)
2. Vanguard JVS has a poor image. (12%)
3. Vocational education does not meet college requirements. (9%)
4. It didn't offer classes that I'm interested in. (8%)
5. Vocational education limits my choices. (7%)
6. I have a poor image of vocational education students. (7%)
7. I didn't want to leave my friends. (7%)
8. I didn't want to change schools. (5%)
9. I just don't want to go. (5%)

10. My parents advised me against enrolling in Vanguard. (4%)
11. Vocational classes are too easy or not challenging. (4%)
12. There was a lack of information about the Vanguard JVS. (4%)
13. No sports opportunities. (3%)
14. Vocational education is a waste of time. (3%)
15. I plan(ned) to attend at the vocational school and take vocational classes. (2%)
16. I don't want a vocational type of job. (2%)
17. No reason. I never thought about it. (2%)
18. No reason to enroll in vocational education. (2%)
19. There was a scheduling problem. (2%)
20. Vocational education is expensive. (1%)
21. My friends didn't go to Vanguard JVS. (1%)
22. Vocational classes are too difficult. (0.3%)

In addition to the open-ended items, students responded to a list of 14 selected reasons for not enrolling in vocational education. A Likert scale was developed to further determine students' reasons for not enrolling in vocational education. Students responded whether they had "no concern," (1) "little concern," (2) "some concern," (3) "great concern," (4) or "did not think about it". The top five reasons were:

		Mean	SD
1.	Plans to attend college	3.18	1.1
2.	Behavior of vocational students	2.92	1.2
3.	Career choice limitations	2.79	1.2
4.	Academic ability of vocational students	2.67	1.2
5.	Association with vocational students	2.56	1.2

Vocational Classes at the Home School

Six percent of the students indicated they were not informed about vocational classes offered at their home schools. Fifty-nine percent indicated they were slightly informed while 35% were very informed. Thirty percent indicated they had considered enrolling in vocational classes at their home school, while 70% said they had not considered enrolling.

Reasons for Not Enrolling at Vanguard JVS

Ten potential reasons for not enrolling at the Vanguard JVS were presented to the students. A Likert scale was developed to further determine students' reasons for not enrolling at the JVS. Students responded whether they had "no concern," (1) "little concern," (2) "some concern," (3) "great concern," (4) or "did not think about it". Results showed the following top five reasons.

		Mean	SD
1.	Home school will better prepare a student for college	3.17	1.1
2.	Unwilling to leave my friends at my home school	2.91	1.2
3.	Association with students from the JVS	2.55	1.2
4.	The image of the JVS	2.53	1.2
5.	Unable to participate in sports at my home school	2.41	1.3

Thoughts About Vocational Education

Responses to an open-ended question regarding student thoughts when they think about vocational education were summarized into categories. The 853 responses were judged through content analysis by the researcher to be positive (26.4%), negative (55.5%) or neutral (18.1%). The categories and percentages were:

Positive

1. Vocational education is fine for students who do not go on to college. (7.9%)
2. Vocational education trains students for a specific type of job. (4.9%)
3. Vocational education provides a good learning experience and opportunity. (3.0%)
4. Vocational education prepares students for a career directly after high school. (3.0%)
5. Vocational education could help you in the future. (3.0%)
6. Vocational education helps a student become better qualified for a career. (2.4%)
7. I want to or plan to take vocational education courses. (1.1%)
8. Vocational education is interesting, fun or exciting. (1.1%)

Negative

1. Vocational education is for troublemakers. It has a bad reputation and poor image. (12.2%)
2. Vocational education is all right for some but it is not for me. (11.0%)
3. Vocational education is the easy way out. It is not challenging. (7.1%)

4. Vocational education did not interest me. (6.7%)
5. Vocational education is for low income, low intelligence students. (6.3%)
6. Vocational education limits your knowledge about career choices. (3.3%)
7. Vocational education is a waste of time. (2.6%)
8. Vocational education does not offer courses required for college preparation. (2.4%)
9. Vocational education is like working for half a day and then taking classes for half a day. (1.2%)
10. Vocational education classes are too difficult. (1.2%)

Neutral

1. I never thought much about vocational education. (9.1%)
2. I don't know anything about vocational education. (7.8%)
3. Vocational education reminds me of vocational agriculture and farming. (1.2%)

Thoughts About Vanguard JVS

Responses to the open-ended question regarding students' thoughts when they think about the Vanguard JVS were summarized into categories. The 636 responses were judged through content analysis by the researcher to be positive (26%), negative (47%) and neutral (26%). The categories and percentages were:

Positive

1. Vanguard JVS is a nice place. It is unique. (6.29%)
2. Vanguard JVS provides a good career learning experience for people who want to know a trade. (5.50%)
3. Vanguard JVS provides a variety of career opportunities. (4.72%)
4. Vanguard JVS is fine for students who don't want to proceed to college. (4.72%)
5. Vanguard JVS trains students for a specific types of careers. (3.15%)
6. Vanguard JVS is interesting, exciting and different from regular high school. (2.36%)

Negative

1. Vanguard JVS is for troublemakers. It has a bad reputation and a poor image. (14.15%)
2. Vanguard JVS is an easy way out. It's not challenging. (11.79%)
3. Vanguard JVS doesn't have what I'm interested in. (5.5%)
4. Vanguard JVS is all right for some people, but it is not for me. (5.5%)
5. Vanguard JVS is for low income and under achieving students. (5.5%)
6. Vanguard JVS narrows my exposure to other types of careers. (3.3%)
7. Vanguard JVS does not offer college preparatory courses. (1.57%)

Neutral

1. I never thought much about attending Vanguard JVS. (14.94%)
2. I don't know anything about attending Vanguard JVS. (8.65%)

Images of Vocational Education

Students' images of vocational education were measured with a composite score of students' responses to a list of 14 potential reasons for not enrolling in vocational education. Students responded whether they had "no concern,"(1) "little concern,"(2) "some concern,"(3) "great concern,"(4) or "did not think about it". Those who had great concern with the reasons (higher composite scores) were judged to have a negative image of vocational education. Those responding they had no concern (lower composite scores) were judged to have a more positive image of vocational education. The potential range of scores was 0-56, with an actual range of 1-56. The mean score was 27.58, with a standard deviation of 10.21.

Images of the Vanguard JVS

Students were asked to respond to a set of ten reasons for not enrolling at the Vanguard JVS. Students' images were computed using a composite score. Students responded whether they had "no concern."(1) "little concern,"(2) "some concern,"(3) "great concern,"(4) or "did not think about it". Those who had great concern with the reasons (higher composite scores) were judged to have a negative image of the JVS. Those responding they had no concern (lower composite scores) were judged to have a more positive image of the JVS. The potential range of scores was 0-40, with an actual range of 1-40. The mean score was 20.62, with a standard deviation of 7.75.

Experiences at Schools

Students were asked to report how informed they were about vocational classes offered at their home schools and what previous experiences they

had at a joint vocational school. Table 1 summarizes their responses.

Future Occupations

Sixty-four percent of the respondents (391 students) indicated they had selected a future occupation. The top five occupations chosen were: teacher, business person, doctor, military personnel, accountant.

Influencers on Enrolling at the Vanguard JVS

Students reported that they were influenced by others when choosing their high school curriculum. When deciding to not enroll at the Vanguard JVS, the students' friends were most influential. Fifty-three percent of the students indicated that their friends influenced them when making their decision to not enroll. The mother was also influential, followed by the father.

Future Plans to Attend Vanguard JVS

The majority of the students were not interested in attending the Vanguard JVS for one-half a day program. They also were not interested in attending a summer school program at the Vanguard JVS to prepare them for their career. Likewise, the majority were not interested in attending a night school program. The majority were also not interested in taking additional math, English or pre-engineering courses in an effort to attend the JVS.

Future Classes to Offer

The students were asked to identify the classes they would like to see offered at the home school that were not presently offered at the JVS. They also identified the courses they thought would help them to prepare for their future occupations. The top five courses in each category are listed in Table 2.

Further Education and Military Plans

Students were asked to indicate their plans for further education and plans to enter the military after graduating from high school. Table 3 lists the percent of students with each intention.

Implications and Recommendations

The data reveal student images of (1) vocational education and (2) the Vanguard JVS. These images need to be improved. If students are to be recruited into vocational programs, they must hold positive images in order to make a decision to enroll. In order to improve the images formed, many recommendations are offered.

1. Efforts need to be made to promote the accomplishments of graduates. Schools need to include information about graduates going on to higher education. Placement rates and starting salaries

Table 1

Students' Experiences

Been previously enrolled at a vocational school	5%
Never toured the JVS	43%
Did not seriously consider attending the JVS	78%
Not informed about vocational classes at the home school	6%
Slightly informed about vocational classes at the home school	59%
Very informed about vocational classes at the home school	35%

Table 2

Suggested Classes

Classes to Offer at Home School	f
Cosmetology	12
Psychology	10
Child Care	9
Engineering	9
Auto Body	8
Classes to Prepare for Future Occupations	
Mathematics	310
English	220
Science	107
Computer	63
Chemistry	50

Table 3 Students' Future Plans	
Educational Plans	
Do not plan to enroll in additional education beyond high school	5%
Attend a professional or graduate school	8%
Additional education, but not sure where	11%
Enroll in a two year technical school	13%
Not sure	14%
Enroll in a four year college	45%
Military Plans	
Definitely will not enter the military	38%
Not sure	23%
Not likely to enter the military	21%
Likely to enter the military	10%
Definitely will enter the military	6%

of graduates should be publicized. Vocational students who receive scholarships to further their education should be in the limelight.

2. Additional articulation agreements need to be made and publicized between the JVS and technical schools, colleges and universities.
3. School administrators must recognize the direct clash in scheduling courses between vocational and academic curricula. Perhaps the two can be blended in order to allow the academic student a chance to explore vocational course work for enrichment or investigative purposes to help decide on a career.
4. Efforts should be made to ease the social transition when students change schools in order to attend the JVS. Home school friendship is a bond that is keeping some students from enrolling. The JVS should be promoted as a friendly place that provides for social interactions. School social events should be sponsored to encourage social interaction. There should be more non-competitive events between the students at the JVS and each of the home schools. Marketing pieces should address the issue of leaving your friends at the home school vs. increasing your friendship network at a new school.
5. New vocational program offerings should be considered for the JVS. Additional marketing should be done to explore employment possibilities and interest in the following programs: cosmetology, psychology, child care, engineering and autobody.
6. Comprehensive feeder schools should sponsor tours of the JVS for all students prior to or during the sophomore year of high school. Students should be introduced to all program offerings.
7. There needs to be increased efforts at public information. Specifically, mothers and students should be targeted as audiences. These groups were found to be most influential on students when making a decision to not enroll in vocational education.

Recommendations for Further Research

1. Additional marketing research is needed to validate the need for additional employees in the surrounding geographic area for vocations in cosmetology, psychology, child care, engineering and autobody.
2. Additional research is needed to explore the friendship bonds that keep students from leaving their home schools.
3. Additional research is needed to explore the mother-child relationship to determine how to use the mothers' influence to encourage enrollment in vocational education. One also needs to determine how she arrives at her images of vocational education.
4. Additional research is needed to determine if increased graduation requirements and increased college entrance requirements have made a significant impact on enrollment in vocational education.
5. Additional research is needed to determine what pre-college vocational courses would be most suitable for future teachers, business persons, doctors, military personnel and accountants.
6. Additional research is needed to study other additional student characteristics of those enrolled in academic and general curriculums. Relationships can be explored between selected student characteristics and reasons for enrolling in academic and general curriculums.
7. A similar image study could be designed for students at the 7th-10th grade level. The purpose would be to determine when images of vocational education are formed and what those images are. A follow-up study on these same students could be taken when they reach the 11th grade to see if images change.
8. A follow-up study on this 11th grade sample could be designed to see if any students enroll in vocational courses during their 12th grade or enroll in a technical school after graduation.
9. One could explore reasons why students enroll in vocational education at their home schools and at

the Vanguard JVS. The reasons given can be compared with the results of this study.

10. One can study the student characteristics of those currently enrolled in vocational education at the home school as well as at the Vanguard JVS. Characteristics to examine would include: grade point average, class rank, socioeconomic status, honors earned. Comparisons can be made between students enrolled in general and academic curriculums.
11. A model needs to be developed in order to administer vocational education for students in dual vocational and academic curriculums. Further study is needed in order to establish how these programs will be scheduled and delivered.

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SUMMARY OF RESEARCH

There has been a steady decline in enrollment in vocational programs in Ohio since 1979, with a decline of 21% from 1979-1987. There are many reasons why high school students elect not to enroll in vocational education programs. This study investigated factors that influence students not to enroll at the Vanguard Joint Vocational School and in five feeder comprehensive high schools. Vocational education teachers, vocational administrators, state supervisory staff, and teacher educators should find this information useful in program planning and student recruitment.

This summary is based on research conducted by Rosemarie Rossetti, Assistant Professor, Department of Agricultural Education, The Ohio State University. Special appreciation is due to Jim L. Flowers, North Carolina State University; and Lowell E. Hedges, The Ohio State University for their critical review of the manuscript prior to publication.

Research has been an important function of the Department of Agricultural Education since it was established in 1917. Research conducted by the Department has generally been in the form of graduate theses, staff studies, and funded research. It is the purpose of this series to make useful knowledge from such research available to practitioners in the profession. Individuals desiring additional information on this topic should examine the references cited.

Wesley E. Budke, Associate Professor
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SR 62 1991

Summary of
Research

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An Examination of Factors Influencing Students Not to Enroll at the Lawrence County JVS

Rosemarie Rossetti

Introduction

There has been a steady decline in enrollment in vocational programs in Ohio since 1979, with a decline of 21% from 1979-1987. In 1987, Ohio student enrollment was 165,639 students or approximately 59% of Ohio's 11th and 12th grade students, enrolled in nine vocational programs (agricultural education, marketing education, health education, home economics (gainful), home economics education, business education and trade and industry education).

Many of Ohio's 11th and 12th grade vocational students are enrolled in area vocational schools. Students from comprehensive high schools have an option to leave their home high school to attend vocational centers. Some students continue attending classes at their home high schools, while others leave their home high schools after the 10th grade.

The primary purpose of vocational education is to train students for careers. Ginzberg (1951) believed that career development was an ongoing continuous process. He also believed that it was a process that involved choices. The choice to enter into a vocational curriculum is a choice toward choosing a career. There are many factors that influence career decisions. Several authors have identified barriers to enrollment in vocational education.

Lam's (1982) classification system was used to describe the barriers that influence students' decisions not to enroll in vocational education. This system divides the reasons into three main categories. The first is intrapersonal reasons which include attitudes, perceptions, images, motivation, career maturity and value systems. The second is influence of parents, friends, counselors, neighbors, teachers and other relatives. The final category is remote external reasons which include socioeconomic status, parental income and parental educational levels.

Others look at career maturity as a barrier to enrollment. The concept of career maturity was introduced by Super (1955). Super defined career maturity as the repertoire of behaviors that help identify, choose, plan and execute career goals, being at an average level in career development for one's age. Super (1963) also considered congruence between vocational behavior and expected vocational behavior at that age. The problem in career maturity arises when students are asked to make a choice too soon. Herr (1979) believed that the complexity of the factors involved in a career choice make it impossible for students to make realistic choices until they are seniors in high school or after high school. Vocational school directors also state that high school students were neither knowledgeable enough about careers nor mature enough to make appropriate career decisions (O'Neill 1985). The choice to select a vocational program, thus a career, has to be made in the 10th grade in order to enroll in Ohio's area vocational centers or joint vocational schools (JVS). According to Herr, this choice is an unrealistic one and one that a student is not mature enough to make realistically.

Many people influence a student when making a decision about their high school curriculum. An individual is less likely to express a preference and more likely to express a rejection for an activity or field of study that has had consistently negatively expressed opinions from a valued person (Social Learning and Career Decision Making, 1979). Herr (1987) found that students will seek advice from a teacher, parents, friends, counselors and other relatives.

Purpose and Objectives

This study investigated factors that influence students not to enroll at the Lawrence County JVS and in vocational education at the seven feeder comprehensive high schools. The purpose of the study was to identify reasons why high school students elect not to enroll into vocational curriculums. Specific objectives were as follows:

1. To describe the characteristics of the students (gender, race, curriculum choice, place of residence) who chose not to enroll into a high school vocational curriculum.
2. To describe the reasons students give for choosing not to enroll at the Lawrence County JVS.
3. To describe students' images of vocational education and the Lawrence County JVS.
4. To determine the relationships between student characteristics and reasons for not choosing to enroll at the Lawrence County JVS.
5. To determine who influences students to make decisions not to enroll in the Lawrence County JVS.
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7. To determine the future occupational choices of students.
8. To determine the future educational choices of students.
9. To determine if additional course offerings at the Lawrence County JVS would encourage enrollment.
10. To determine if alternative delivery systems at the Lawrence County JVS would encourage enrollment.
11. To determine who influences students when making career choices.

Methodology

Population and Sample

This study was developed as descriptive survey research. The target population was all 11th grade, students in the seven comprehensive feeder schools for the Lawrence County JVS during the 1989-90 school year. The school is located within Lawrence County, which is the most southern county in Ohio. The 1986 estimated population of the county was 62,200, with a per capita income of $8,956. The 1988 unemployment rate was 7.9%. There are six high schools (grades 9-12) in the county, with 3,425 students enrolled, and one high school in the city of Ironton, with 603 students. The results of this study are not generalizable to other populations.

A census of 11th grade students was used from intact English and Government classes. The population size was estimated to be 808 students. Data were collected from a sample of 544 students. Sample size was based on the formula to determine sample size in order to be representative of the given population (Krejcie & Morgan, 1970), with 95% confidence and a 5% margin of error. Data was collected in April 1990 from all students present on the day the instrument was distributed.

Instrumentation

The questionnaire used for this study was revised from a similar questionnaire used in a study in 1988 (Factors That Influence a Student Not to Enter Into a High School Vocational Curriculum). Input was received from school administrators at Lawrence County JVS to add additional questions. No substantive changes were made. Minor revisions and adaptations were completed on the original questionnaire. Faculty at The Ohio State University were consulted to review the questionnaire and make further improvements on format and content validity.

The student questionnaire was designed to acquire data on the following student variables: sex, race, curriculum choice and place of residence. Data was also collected on: students' images of vocational education and of the Lawrence County JVS, reasons for not enrolling at the Lawrence County JVS, people who influence students in making enrollment decisions, choice of future occupation, educational and military plans after high school, considerations of alternative delivery systems and suggested program offerings.

Content validity was established on the original questionnaire by panels of experts comprised of university faculty, vocational researchers and graduate students. Reliability was determined on the questionnaire using test-retest procedures, at an area high school not participating in the study, with Pearson product moment coefficients ranging from .42 to 1.00. Cronbach's alpha was conducted to determine the reliability of summated scales and coefficients ranged from .63 to .83.

The revised instrument was field tested in an 11th grade English class that was not in the population. After the pilot test, the instrument was mailed to the JVS for printing. The administration of the questionnaire was coordinated by personnel at the JVS. Completed questionnaires were delivered to OSU for processing and data analysis.

Data Analysis

All completed questionnaires were coded and data were entered into a personal computer and analyzed on the OSU main frame computer using the Statistical Package for Social Sciences. Descriptive statistics were employed in order to describe the sample and their responses. The relationships between the nominal student characteristics and image of vocational education and the JVS were determined with analysis of variance. Variables are reported as being significant at the .05 alpha level. Data from open-ended responses were summarized and put into categories.

Findings

Student Characteristics

Fifty-two percent of the sample indicated that they were enrolled in an academic curriculum, while 26% were enrolled in a general curriculum, 21% in a general curriculum with a business emphasis and 14% were in a vocational curriculum. Fifty percent of the sample were male, while fifty percent were female. The majority of the sample (93%) were White, while 2% were Black, 2% Other and 3% Native American. Most of the students lived in a rural area, but not on a farm (38%). Few students, 10%, lived on a farm, 30% lived in the city, while 22% lived in a suburb.

Students' characteristics (sex, race, place of residence) were used as nominal variables to determine if they helped explain the variability of image of the JVS. When examining the relationships, statistically significant differences ($p < .05$) were found. The differences in mean scores were statistically significant between image scores of the JVS and students' sex and place of residence. Females had a more negative images of the JVS than did males. Those who lived in the city had the more negative images of the JVS that did those who lived in a suburb of a town or city. There were no significant differences between students' race and images of the JVS.

Reasons for Not Taking Business Classes at the JVS

Students were asked whether or not they had ever enrolled in business classes at their home school. Fifty-five percent (299 students) said no, while 45% (244 students) said yes. For those that had previously enrolled in business classes at their home school but did not choose to take business classes at the JVS, the following top five explanations were given:

1. I didn't want to go. (14%)
2. I am planning for a college career. (14%)
3. I did not want to change schools. (12%)
4. There were scheduling problems. (7%)
5. It didn't meet my needs. (6%)

Reasons for Not Enrolling at the Lawrence County JVS

Ten potential reasons for not enrolling at the Lawrence County JVS were presented to the students. A Likert scale was developed to further determine students' reasons for not enrolling at the JVS. Students responded whether they had "no concern," (1) "little concern," (2) "some concern," (3) "great concern," (4) or "did not think about it". Results showed the following top five reasons.

	Mean	SD
1. Home school will better prepare a student for college	3.27	1.1
2. Unwilling to leave my friends at my home school	2.89	1.2
3. Association with students from the JVS	2.37	1.2
4. The image of the JVS	2.34	1.2
5. The programs offered at the JVS	2.33	1.2

Students were asked to respond to an open-ended question concerning their reasons for not enrolling in the Lawrence County JVS. There were 711 reasons cited and placed into the following top ten categories.

1. I am planning for college. (30%)
2. I didn't want to leave my friends. (10%)
3. I don't want to go. (9%)
4. I wasn't interested in the courses. (9%)
5. Poor image of the vocational school. (9%)
6. It didn't meet my needs. (8%)
7. I did not want to change schools. (7%)
8. Parents advised me against enrolling. (5%)
9. Poor image of the vocational students. (4%)
10. Too far to travel. (4%)

Thoughts About Vocational Education

Responses to an open-ended question regarding student thoughts when they think about vocational education were summarized into catego-

ries. The 489 responses were judged through content analysis by the researcher to be positive (68.8%) negative (25.6%) or neutral (5.7%). The categories and percentages were:

Positive

1. It is for people not interested in college. (27.4%)
2. Vocational education is a good idea. (19.4%)
3. It is training for a future career. (15.6%)
4. It helps you to understand and learn more about a specific area of work. (6.4%)

Negative

1. It is for people who can't learn anything else. (9%)
2. It serves no purpose. (5.1%)
3. People who go to school there use drugs. (3.5%)
4. People are training for low paying jobs. (3.5%)
5. Troublemakers go to school there. (2.7%)
6. I don't like vocational education. (1.3%)
7. It's stupid. (.006%)

Neutral

1. I never thought about it. (4.1%)
2. I am not interested. (1.6%)

Thoughts About the Lawrence County JVS

Responses to the open-ended question regarding students' thoughts when they think about the Lawrence County JVS were summarized into categories. The 355 responses were judged through content analysis by the researcher to be positive (57%), negative (34%) and neutral (9%). The categories and percentages were:

Positive

1. It's a nice school. (32.4%)
2. It helps you to get acquainted with trades and to get job training. (12.7%)
3. A place for people who don't want to go to college. (12.4%)

Negative

1. Too many drugs out there. (11.8%)
2. A place for slow learners. (7.3%)
3. It's a lower class school. (4.8%)
4. I don't want to go there. (4.8%)
5. It serves no purpose. (2.3%)
6. It's stupid. (2.3%)
7. Racial prejudice exists. (0.8%)

Neutral

1. I don't know anything about it. (7.3%)
2. They don't have the classes I wanted. (1.1%)

Images of the Lawrence County JVS

Students were asked to respond to a set of ten reasons for not enrolling at the Lawrence County JVS. Students' images were computed using a composite score. Students responded whether they had "no concern."(1) "little concern,"(2) "some concern,"(3) "great concern,"(4) or "did not think about it". Those who had great concern with the reasons (higher composite scores) were judged to have a negative image of the JVS. Those responding they had no concern (lower composite scores) were judged to have a more positive image of the JVS. The potential range of scores was 0-40, with an actual range of 3-40. The mean score was 19.95, with a standard deviation of 7.00.

Students' Levels of Information About the JVS

Various questions were posed to the students to determine the amount of information they had about the JVS. Table 1 summarizes their responses.

Table 1

Levels of Information

First heard about JVS in junior high	43%
First heard about JVS freshman year	25%
First heard about JVS in elementary school	16%
First heard about JVS sophomore year	12%
Never heard about JVS	5%
Slightly informed about JVS	58%
Very informed about JVS	32%
Not informed about JVS	10%
Would liked to have had more information on JVS	64%

Visitation Experiences at Schools

Students were asked what type of visitation experiences they had regarding vocational schools. Table 2 summarizes their responses.

Students were asked to list their reasons for not visiting the Lawrence County JVS with their sophomore class. The following top five reasons were given:

1. Absent from school the day of the visit. (42%)
2. Didn't want to go. (24%)
3. Not interested. (11%)
4. Recently moved to school district. (10%)
5. Poor image of the Lawrence County JVS. (6%)

Deciding Not to Attend

Students were asked if they had made their decisions not to attend the Lawrence County JVS before they visited the school. Forty-six percent of the students (248) indicated they had decided before the visit. Forty percent had not made their decision before the visit. Fourteen percent said they had never visited the school.

Forty-two percent of the students said they first began to think that they were not interested in attending the JVS during their sophomore year. Twenty-one percent felt it was during their freshman year, while 10% thought it was in elementary school.

Sixty-five percent of the students were very satisfied with their decision not to enroll. Fifteen percent were neither satisfied nor dissatisfied with their decision. Ten percent were somewhat satisfied, while 6% were somewhat dissatisfied and 3% were very dissatisfied with their decision.

Students Change Minds About Attending JVS

Eleven percent of the students had changed their minds about attending the JVS after having signed up to attend during their sophomore year. The following top five reasons were cited:

1. I didn't want to leave my friends. (13%)
2. I did not want to change schools. (13%)
3. Poor image of the vocational school. (11%)
4. Parents advised me against enrolling. (11%)
5. Poor image of the vocational students. (11%)

Four percent of the students (22) attended classes at the JVS during their junior year and then went back to their home school within a few days. The top three reasons cited for changing their minds included the following:

1. Poor image of the vocational students. (31%)
2. I don't like staying in one class all day. (19%)
3. Poor image of the vocational school. (19%)

Table 2

Students' Visitation Experiences

Had previously visited a vocational school	81%
Had toured the JVS with their sophomore class	77%
Did not seriously consider attending the JVS	37%

Future Occupations

Sixty-five percent of the respondents (355 students) indicated they had selected a future occupation. The top five occupations chosen were: nurse, teacher, business person, air force personnel and doctor.

Influencers on Enrolling at the JVS

Students reported that they were influenced by others when choosing their high school curriculum. When deciding to not enroll at the Lawrence County JVS, the students' friends were most influential. Sixty-six percent of the students indicated that their friends influenced them when making their decision to not enroll. The mother was also influential, followed by the father.

Influencers in Making Career Choices

Twenty-six percent of the students indicated that their mothers were most influential in helping them to make career choices. Twenty-two percent of the students selected their father as being the most influential, while 15% said that no one is helping them.

Future Classes to Offer

The students were asked to identify the classes they would like to see offered at their home

school and at the JVS. They also identified the courses they thought would help them to prepare for their future occupations. The top five courses in each category are listed in Table 3.

Further Education and Military Plans

Students were asked to indicate their plans for further education and plans to enter the military after graduating from high school. Table 4 lists the percent of students with each intention.

Interest in an Alternative Delivery System

Students were asked if they would have been interested in attending the Lawrence County JVS during their sophomore and junior years and then return to their home high school for their senior year. Seventy-two percent (394 students) said they would not be interested.

Table 3

Suggested Classes

Classes to Offer at Home School	f
Business	19
Cosmetology	17
Law	10
Child Care	9
Welding	9
Classes to Offer at the JVS	
Computer	19
Music	18
Law	15
Business	14
Pre-Med	14
Classes to Prepare for Future Occupations	
Mathematics	170
English	117
Chemistry	68
Sciences	67
Algebra	55

Suggested Social Activities, Clubs & Events

Students were asked to write in their suggestions for additional social activities, clubs or events that they would like to see offered at the Lawrence County JVS. The top five included: football, musical activities, basketball, sports and a SADD club.

Image of the JVS Attendance Policy

Students were asked if they felt the JVS attendance policy was any different than the one at their home school. Sixty-three percent indicated that they did not know, while 14% indicated that the policy at the JVS was different and was more strict.

Implications and Recommendations

The data reveal student images of (1) vocational education and (2) the Lawrence County JVS. These images need to be improved. If students are to be recruited into vocational programs, they must hold positive images in order to make a decision to enroll. In order to improve the images formed, many recommendations are offered.

Table 4

Students' Future Plans

Educational Plans	
Do not plan to enroll in additional education beyond high school	7%
Not sure	13%
Attend a professional or graduate school	9%
Enroll in a four year college	47%
Enroll in a two year technical school	6%
Additional education, but not sure where	15%
Military Plans	
Definitely will not enter the military	39%
Not sure	23%
Not likely to enter the military	20%
Likely to enter the military	9%
Definitely will enter the military	6%

1. Efforts need to be made to promote the accomplishments of graduates. Schools need to include information about graduates going on to higher education. Placement rates and starting salaries of graduates should be publicized. Vocational students who receive scholarships to further their education should be in the limelight.
2. Additional articulation agreements need to be made and publicized between the JVS and technical schools, colleges and universities.
3. School administrators must recognize the direct clash in scheduling courses between vocational and academic curricula. Perhaps the two can be blended in order to allow the academic student a chance to explore vocational course work for enrichment or investigative purposes to help decide on a career.
4. Efforts should be made to ease the social transition when students change schools in order to attend the JVS. Home school friendship is a bond that is keeping some students from enrolling. The JVS should be promoted as a friendly place that provides for social interactions. School social events should be sponsored to encourage social interaction. There should be more non-competitive events between the students at the JVS and each of the home schools. Marketing pieces should address the issue of leaving your friends at the home school vs. increasing your friendship network at a new school.
5. New vocational program offerings should be considered for the JVS. Additional marketing should be done to explore employment possibilities and interest in the following programs: medicine, teaching and business.
6. Comprehensive feeder schools should sponsor tours of the JVS for all students prior to or during the sophomore year of high school. Students should be introduced to all program offerings.
7. There needs to be increased efforts at public information. Specifically, mothers and students should be targeted as audiences. These groups were found to be most influential on students when making a decision to not enroll in vocational education.

Recommendations for Further Research

1. Additional marketing research is needed to validate the need for additional employees in the surrounding geographic area for vocations in medicine, teaching and business.
2. Additional research is needed to explore the friendship bonds that keep students from leaving their home schools.
3. Additional research is needed to explore the mother-child relationship to determine how to use the mothers' influence to encourage enrollment in vocational education. One also needs to determine how she arrives at her images of vocational education.
4. Additional research is needed to determine if increased graduation requirements and increased college entrance requirements have made a significant impact on enrollment in vocational education.
5. Additional research is needed to determine what pre-college vocational courses would be most suitable for future teachers, business persons, doctors, air force personnel and nurses.
6. Additional research is needed to study other additional student characteristics of those enrolled in academic and general curriculums. Relationships can be explored between selected student characteristics and reasons for enrolling in academic and general curriculums.
7. A similar image study could be designed for students at the 7th-10th grade level. The purpose would be to determine when images of vocational education are formed and what those images are. A follow-up study on these same students could be taken when they reach the 11th grade to see if images change.
8. A follow-up study on this 11th grade sample could be designed to see if any students enroll in vocational courses during their 12th grade or enroll in a technical school after graduation.
9. One could explore reasons why students enroll in vocational education at their home schools and at the Lawrence County JVS. The reasons given can be compared with the results of this study.
10. One can study the student characteristics of those currently enrolled in vocational education at the home school as well as at the Lawrence County JVS. Characteristics to examine would include: grade point average, class rank, socio-economic status, honors earned. Comparisons can be made between students enrolled in general and academic curriculums.
11. A model needs to be developed in order to administer vocational education for students in dual vocational and academic curriculums. Further study is needed in order to establish how these programs will be scheduled and delivered.

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SUMMARY OF RESEARCH

There has been a steady decline in enrollment in vocational programs in Ohio since 1979, with a decline of 21% from 1979-1987. There are many reasons why high school students elect not to enroll in vocational education programs. This study investigated factors that influence students not to enroll at the Lawrence County Joint Vocational School and in seven feeder comprehensive high schools. Vocational education teachers, vocational administrators, state supervisory staff, and teacher educators should find this information useful in program planning and student recruitment.

This summary is based on research conducted by Rosemarie Rossetti, Assistant Professor, Department of Agricultural Education, The Ohio State University. Special appreciation is due to Jim L. Flowers, North Carolina State University; and Lowell E. Hedges, The Ohio State University for their critical review of the manuscript prior to publication.

Research has been an important function of the Department of Agricultural Education since it was established in 1917. Research conducted by the Department has generally been in the form of graduate theses, staff studies, and funded research. It is the purpose of this series to make useful knowledge from such research available to practitioners in the profession. Individuals desiring additional information on this topic should examine the references cited.

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